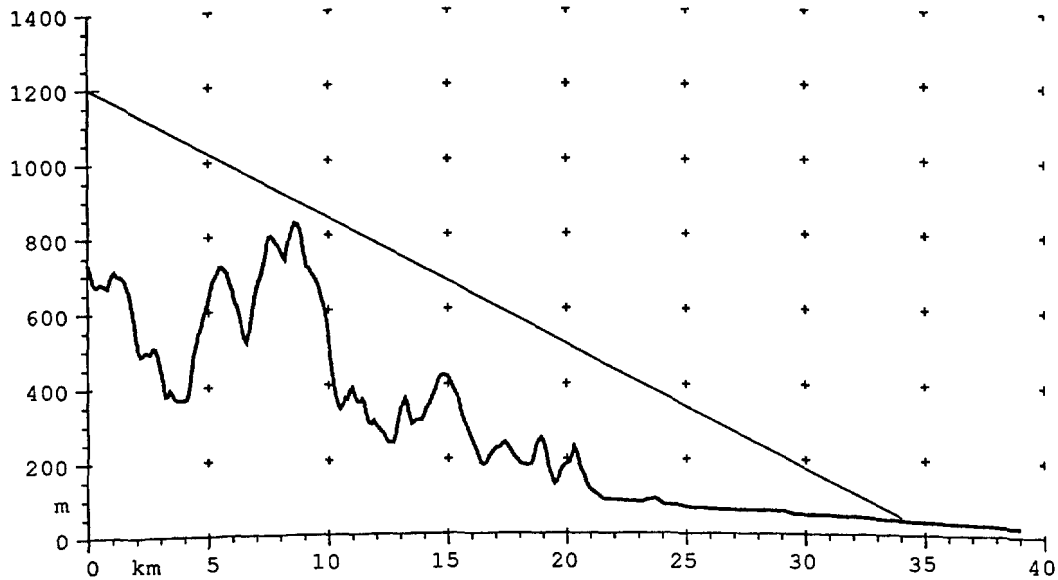
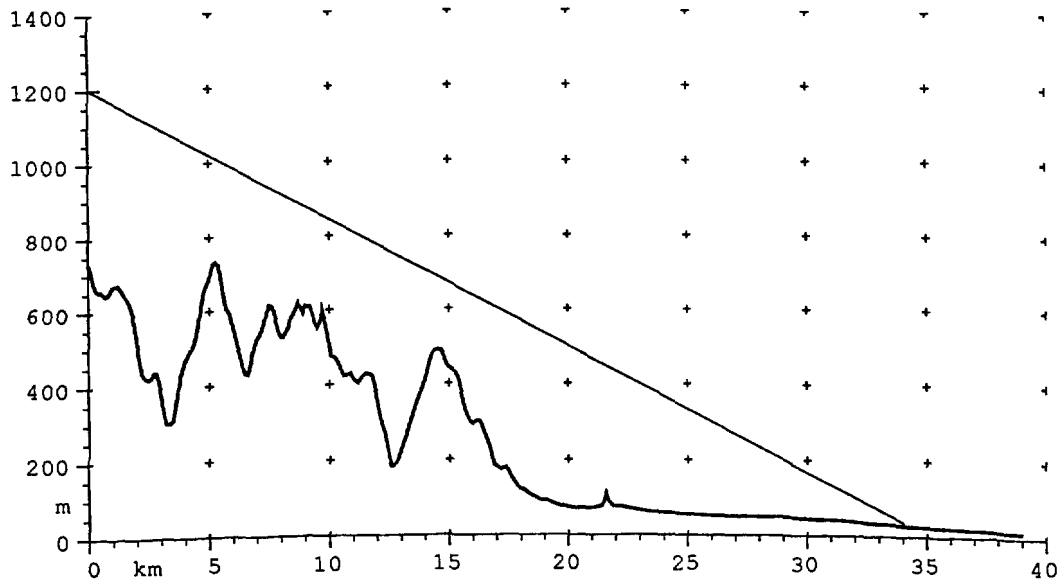


MM DOCKET 93-142 COMMENTS
PROPOSED DELETION OF CHANNEL 11 ALLOCATION
WILLITS, CALIFORNIA

330°T AND 335°T RADIALS FROM KSBW SITE TO SAN JOSE, CALIFORNIA



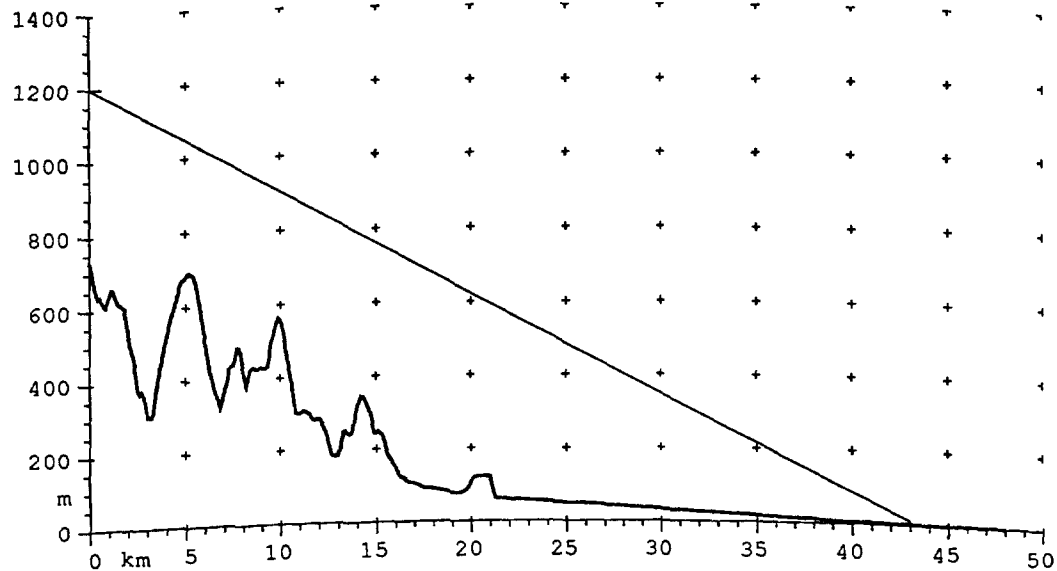
330.0T from 37- 3-30 121-46-33, 4/3 earth, USGS 3-second data



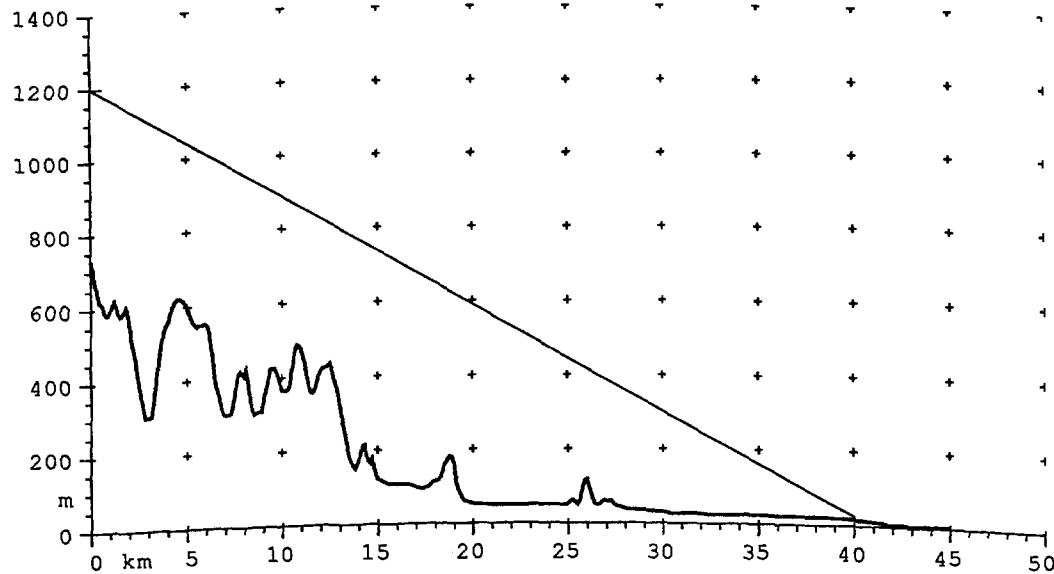
335.0T from 37- 3-30 121-46-33, 4/3 earth, USGS 3-second data

**MM DOCKET 93-142 COMMENTS
PROPOSED DELETION OF CHANNEL 11 ALLOCATION
WILLITS, CALIFORNIA**

340°T AND 345°T RADIALS FROM KSBW SITE TO SAN JOSE, CALIFORNIA



340.0T from 37- 3-30 121-46-33, 4/3 earth, USGS 3-second data



345.0T from 37- 3-30 121-46-33, 4/3 earth, USGS 3-second data

Terrain profiles from KSBW site, with same elevation as employed by TV Station KSBW, to most-distant extent of City of San Jose population centroids based on the 1990 U.S. Census. Profile extends an additional 5 kilometers beyond this distance.

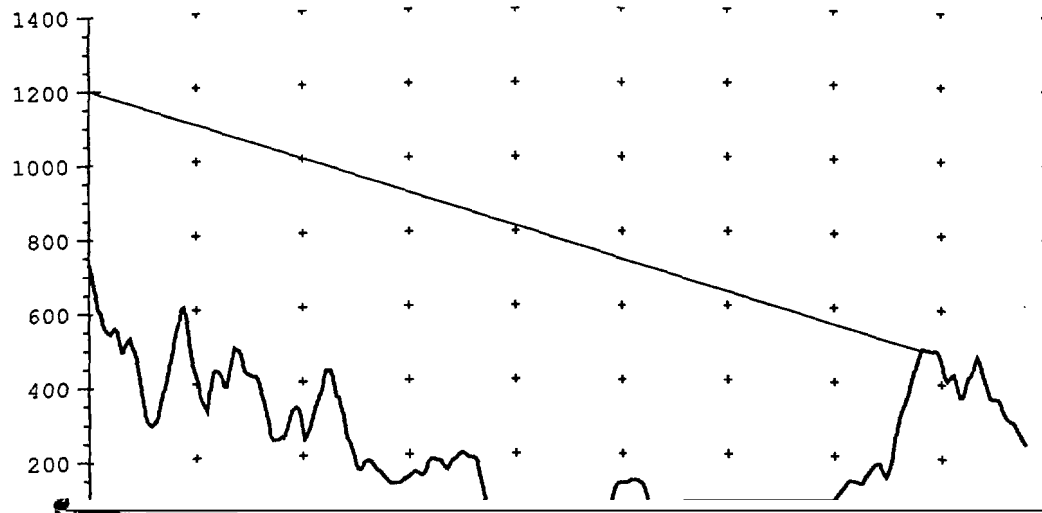
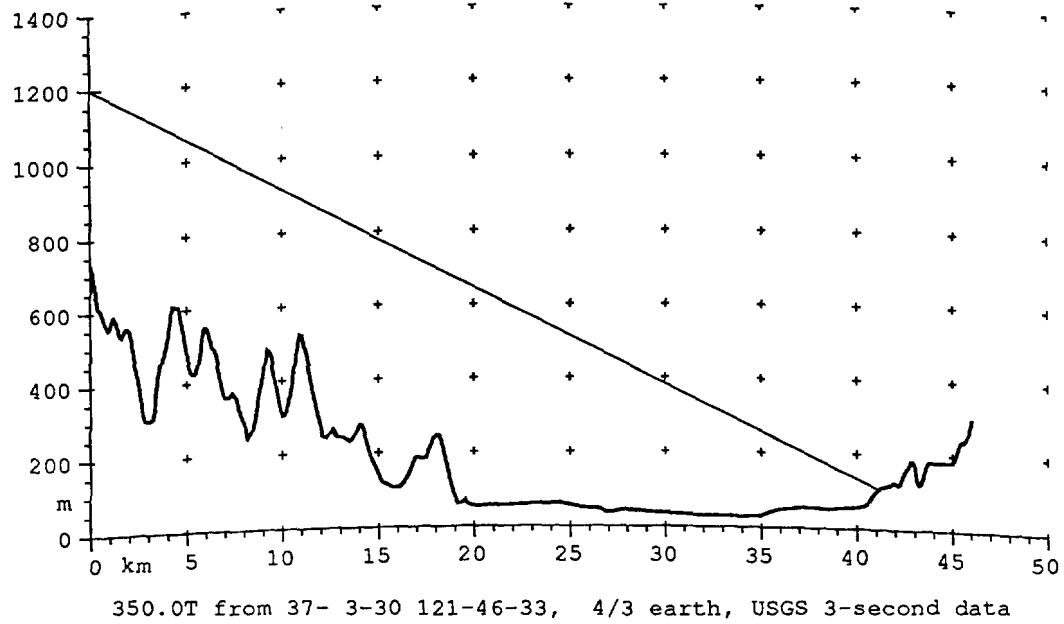


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CONSULTING ENGINEERS
SAN FRANCISCO

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FIGURE 5D

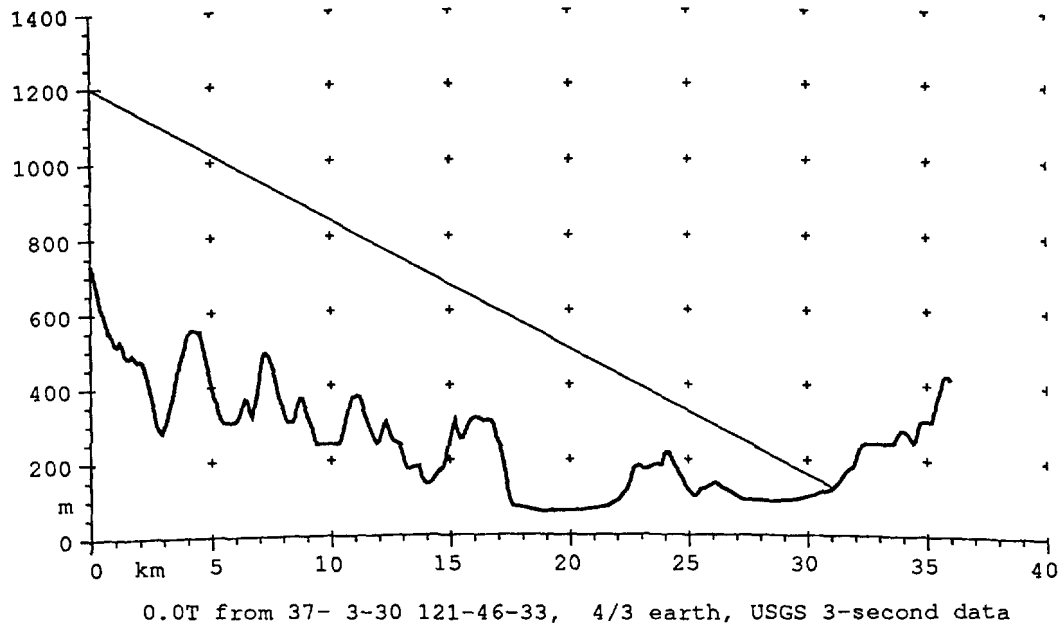
MM DOCKET 93-142 COMMENTS
PROPOSED DELETION OF CHANNEL 11 ALLOCATION
WILLITS, CALIFORNIA

350°T AND 355°T RADIALS FROM KSBW SITE TO SAN JOSE, CALIFORNIA



MM DOCKET 93-142 COMMENTS
PROPOSED DELETION OF CHANNEL 11 ALLOCATION
WILLITS, CALIFORNIA

0°T RADIAL FROM KSBW SITE TO SAN JOSE, CALIFORNIA

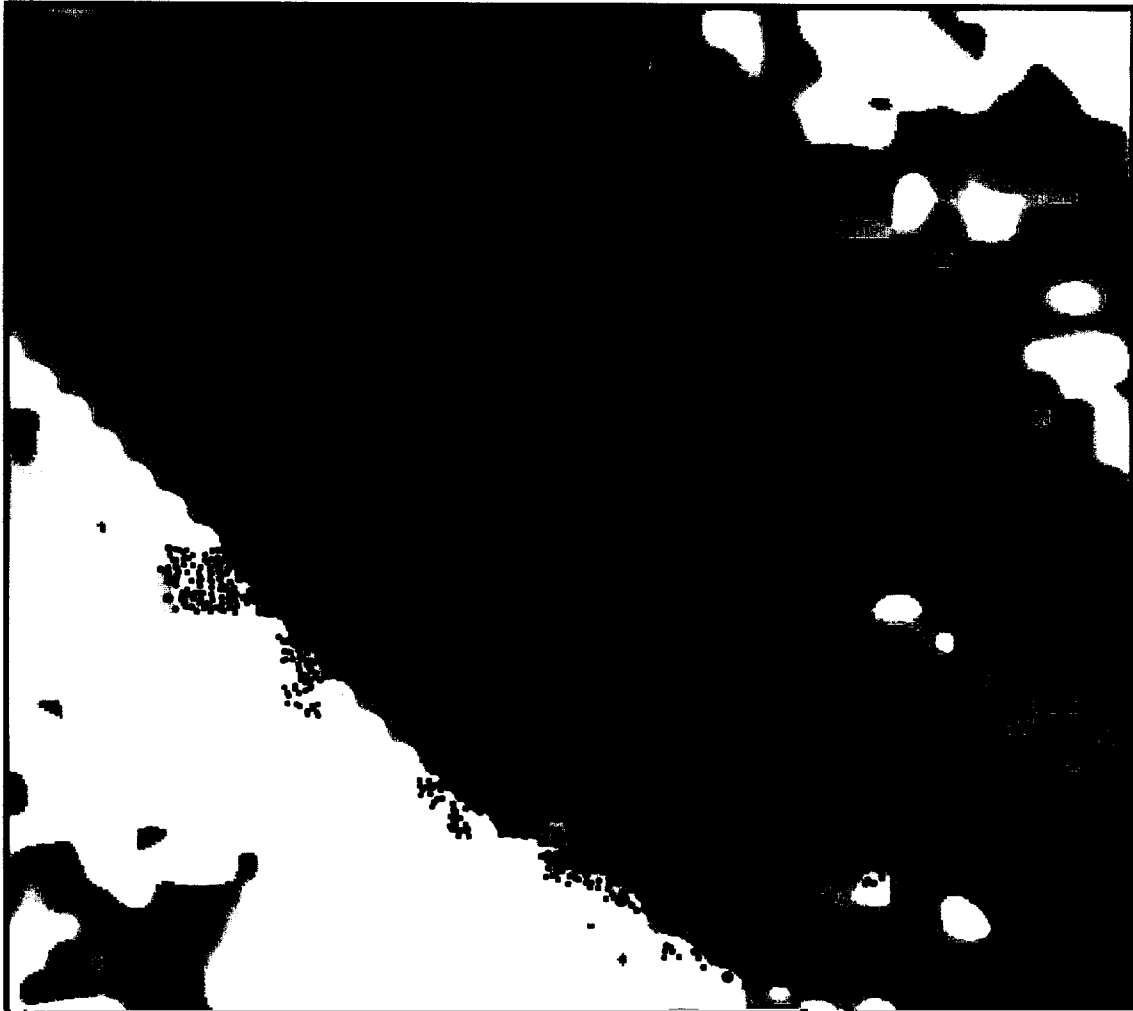


Terrain profiles from KSBW site, with same elevation as employed by TV Station KSBW, to most-distant extent of City of San Jose population centroids based on the 1990 U.S. Census. Profile extends an additional 5 kilometers beyond this distance.



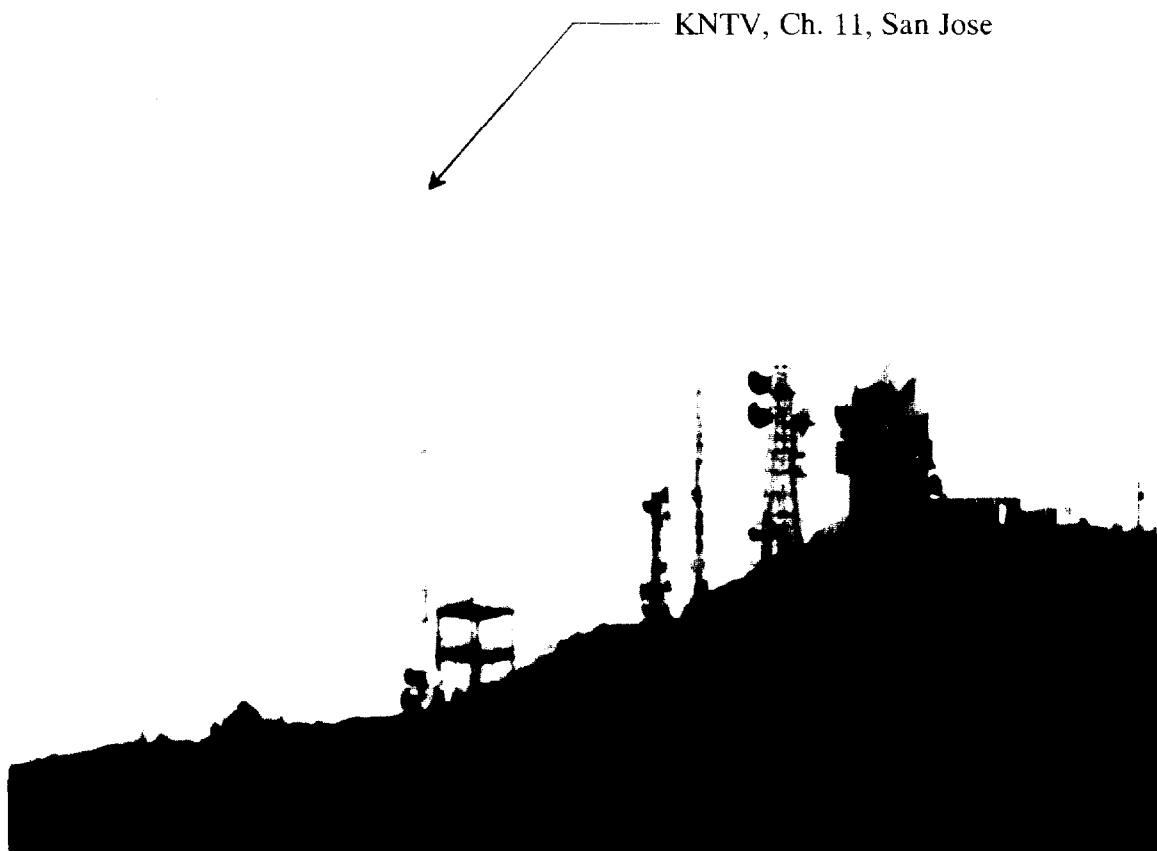
**MM DOCKET 93-142 COMMENTS
PROPOSED DELETION OF CHANNEL 11 ALLOCATION
WILLITS, CALIFORNIA**

**TERRAIN-SENSITIVE COVERAGE OF SAN JOSE
FOR KNTV AT KSBW SITE**



**MM DOCKET 93-142 COMMENTS
PROPOSED DELETION OF CHANNEL 11 ALLOCATION
WILLITS, CALIFORNIA**

LOMA PRIETA SITE PHOTOGRAPH

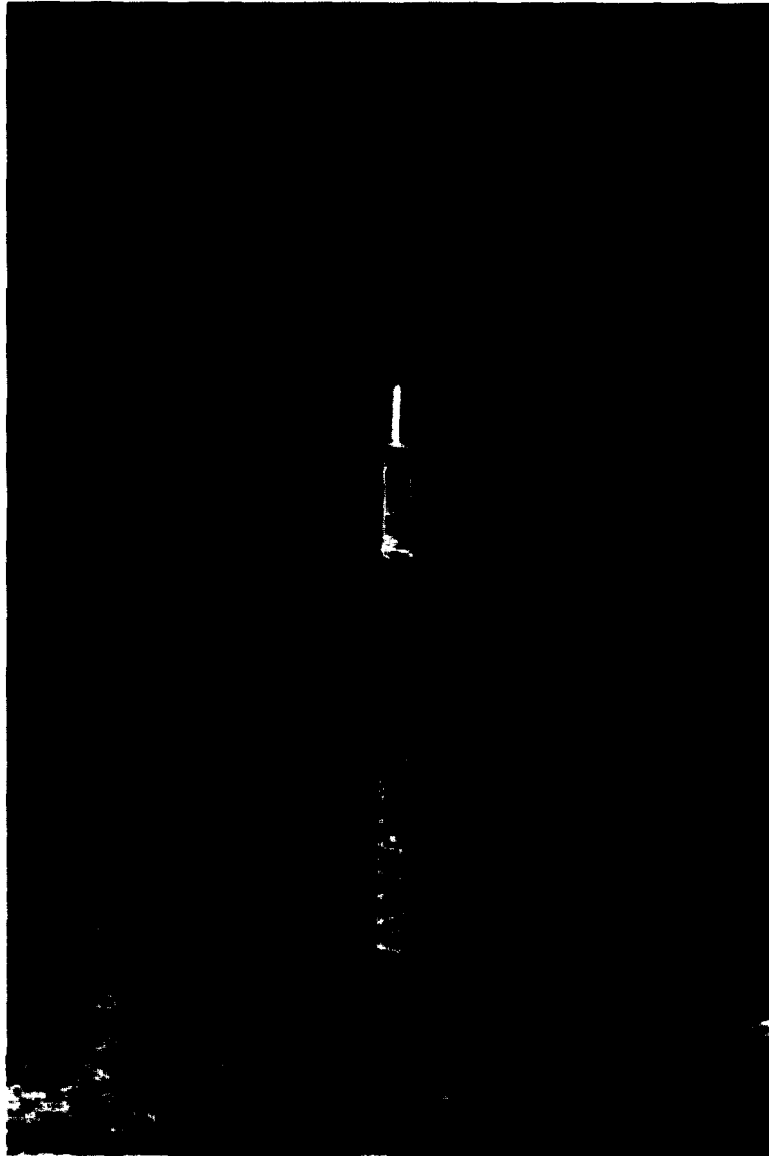


Loma Prieta communications site.

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PROPOSED DELETION OF CHANNEL 11 ALLOCATION
WILLITS, CALIFORNIA

LOMA PRIETA SITE PHOTOGRAPH



KNTV tower at Loma Prieta.



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FIGURE 7C



500 MARKET PLACE TOWER, 2025 FIRST AVENUE, SEATTLE, WASHINGTON 98121
(206) 728-0744 FAX: (206) 727-3350

I, C.B. Crouse, declare the following:

1. I am an Associate in the Earthquake Engineering Group at Dames & Moore, Inc., an international consulting engineering firm headquartered in Los Angeles, California. I have been employed with the firm since August 1988. Prior to joining Dames & Moore, Inc., I was employed from June 1974 to July 1988 with the Earth Technology Corporation, a consulting engineering firm headquartered in Long Beach, California. My entire 19 year professional career has been in the field of earthquake engineering including the disciplines of soil dynamics, structural dynamics, and engineering seismology.

2. I have performed over 100 site-specific seismic hazard evaluations for existing or proposed facilities such as nuclear and conventional power plants, dams, substations, bridges, offshore platforms, pipelines, commercial buildings, hospitals, LNG and water storage tanks, and landfills.

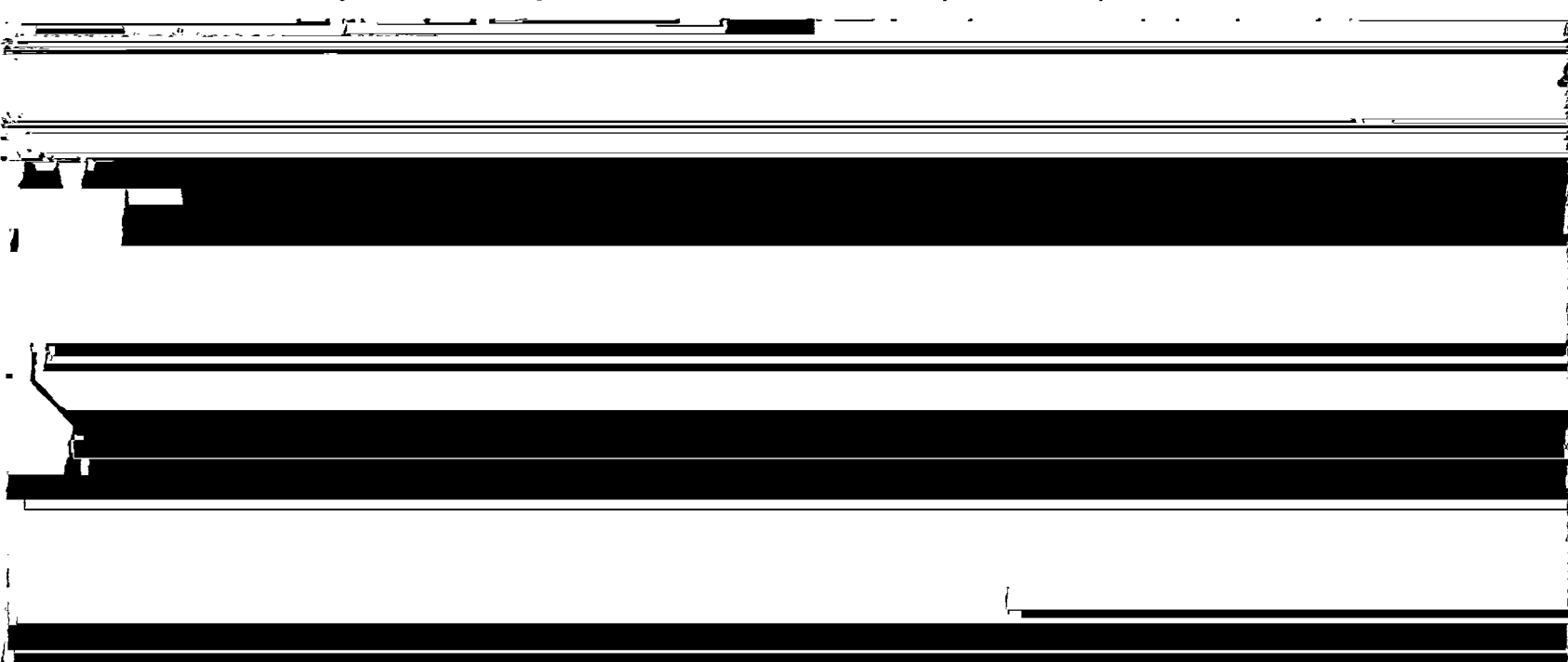
3. I received a B.S. in Engineering from Case Institute of Technology in 1968; the
analysis of my undergraduate work was in Civil Engineering. I received M.S. and

6. I am a registered Civil Engineer in the State of California (Registration No. C29085).
7. My curriculum vitae is presented as Exhibit 1.
8. I have been retained by Hammett & Edison, Inc. to review (a) the seismic hazard of the transmitter tower site of TV Station KNTV, and (b) the Declaration of Richard E. Hammond contained in the Petition for Rulemaking filed with the FCC on February 18, 1993, by Akin, Gump, Strauss, Hauer & Field, L.L.P. on behalf of Granite Broadcasting Corporation and KNTV, Inc.
9. I reviewed available publications and maps dealing with the seismic hazard of the site region and discussed some of this information with Jim Hengesh, geologist in the Dames & Moore San Francisco office, and Robert McLaughlin, geologist with the U.S. Geological Survey in Menlo Park, California.
10. As part of my review, I visited the site on July 10, 1993, and observed the location of the tower structure, the surficial geology, and the topography of the site.
11. Based on my review of the literature, discussions with the two aforementioned geologists and observations during the site visit, I conclude that during the assumed remaining life of the tower (~ 30 years), the site on which it is located will probably not experience shaking as strong (~ 0.5g) as it experienced during the 1989 Loma Prieta earthquake. Based on the site's stable performance during the 1989 Loma Prieta earthquake, it is unlikely that the site will experience significant ground cracking, slumping, fissures, or landslides resulting from ground motions less severe than the site experienced during the 1989 event. Furthermore, based on the distribution of Quaternary faults in the San Francisco Bay region, the proximity of mountain peaks to these faults, and the relatively high probability of a major earthquake of magnitude M=7 on the San Francisco Peninsula segment of the San Andreas fault during the next 30 years, I conclude that the ground-motion hazard on those peaks in the San Francisco Bay region that might serve as adequate television transmission locations, is at least comparable or possibly greater than the ground-motion hazard at the tower's present

location at Loma Prieta peak. The reasons for my conclusions in this paragraph are provided in the following paragraphs.

12. The tower is located adjacent to Loma Prieta peak in the Santa Cruz mountains (see Attachment A, Ref. 1). The peak is within the Sargent fault zone (see Attachments B and C, Ref. 2), which has shown evidence of movements during the Holocene, *i.e.* approximately last 10,000 years (Ref. 3). The primary surficial trace of this fault trends in the ESE direction and passes within approximately one-half kilometer of the tower facility. The San Andreas fault trends in the SE direction and passes within approximately 3 kilometers of the site (see Attachment D, Ref. 3).

13. The epicenter of the 1989 Loma Prieta earthquake was located approximately 8 kilometers SW of Loma Prieta peak (Attachment F, Ref. 4). The inferred fault rupture for this earthquake, shown in Attachment E, is coincident with the Santa Cruz Mountain segment of the San Andreas fault, which prior to the 1989 event was estimated to have a 30 percent probability of generating a M~6.5 earthquake in the time period 1988 to 2018. This probability estimate was made in 1988 by The Working Group in California Earthquake Probabilities, which consisted of 12 highly qualified experts in the earthquake field (Ref. 5). The group reconvened after the 1989 earthquake and re-evaluated the probabilities of major earthquakes on segments of the San Andreas fault in the San Francisco Bay area and estimated the probabilities of major earthquakes on the Hayward and Rodgers Creek faults in the East Bay area. They concluded that the



located approximately 1 kilometer from the surface trace of the San Andreas fault. The Loma Prieta peak was located approximately 3 kilometers from the fault. Based on a plot of the peak ground accelerations recorded on rock sites during the 1989 Loma Prieta earthquake versus distance from the fault rupture of this event, the peak ground acceleration at the Loma Prieta peak was probably on the order of 0.5g or greater (Attachment H, Ref. 8).

15. The probability that the site will experience ground shaking during the next 30 years that is as strong or stronger than the level it experienced during the 1989 Loma Prieta earthquake is small in my opinion because the earthquake threat from the Santa Cruz segment of the San Andreas fault is believed to be negligible during this period. Also, because the 1989 Loma Prieta event did not generate any ground failures during the estimated intense shaking at the site, the probability that earthquake-induced ground failures will occur at the site during the next 30 years is also small in my opinion.

16. Relocating the tower from Loma Prieta peak to another peak to the northwest will most likely increase the ground shaking hazard that the tower might experience, not decrease it as suggested in Paragraph 5 of the Declaration of Richard E. Hammond. All viable peaks northwest of Loma Prieta peak in the San Francisco Peninsula region appear to be within 5 kilometers of the San Andreas fault. Peaks in this region are much

probabilities of a M=7 event on the Southern East Bay segment or Northern East Bay segment of this fault during the period 1990 to 2020 are 0.23 and 0.28, respectively.

19. Although the seismic hazard at Loma Prieta peak may not be as great as on other peaks in the Bay area, there is still a significant seismic hazard at this site which should be considered in seismic vulnerability studies of the tower. I recommend that 0.4g be considered as an Upper Level Earthquake (ULE), i.e. shaking that has a small probability of occurrence during an assumed remaining tower life of 30 years, and that 0.2g be considered as a Lower Level Earthquake (LLE), i.e. shaking that has a reasonable probability of occurrence in this period. Under the ULE shaking, the tower should not collapse and under the LLE shaking the tower should not be damaged. Similar performance criteria are typically adopted in the analysis and design of many structures and are implicit in several seismic codes or provisions. The Soil Type 1 Normalized Response Spectra Shape, shown in Figure No. 23-3 of the 1991 Uniform Building Code and scaled to the LLE or ULE acceleration levels, is recommended for any linear dynamic analysis of the tower structure that may be performed.

20. I declare that the foregoing is true to the best of my knowledge and belief.

July 14, 1993


C.B. Crouse, P.E.

REFERENCES

1. United States Department of Interior Geological Survey, Loma Prieta Quadrangle Map, California, 7.5 Minute Series (topographic), 1955; photo revised, 1968; photo inspected, 1978.
2. McLaughlin, R.J., Clark, J.C., and Brabb, E.E., 1988, Geologic map and structure sections of the Loma Prieta 7.5-minute Quadrangle, Santa Clara and Santa Cruz Counties, California: U.S. Geological Survey, Open-file Map 88-752.
3. Map Showing Recency of Faulting, San Francisco-San Jose Quadrangle, California, 1:250,000: Division of Mines and Geology, California, Map 5A, Sheet 5 of 5, Compiled by E.J. Bortugno, R.D. McJunkin, and D.L. Wagner.
4. McNutt, S.R. and Sydnor, R.H., 1990, Introduction, *in* The Loma Prieta (Santa Cruz Mountains) California, Earthquake of 17 October 1989: California Department of Conservation, Special Publication 104.
5. The Working Group on California Earthquake Probabilities, 1988, Probabilities of Large Earthquakes in the San Francisco Bay Region, California: U.S. Geological Survey Open-File Report 88-398.
6. The Working Group on California Earthquake Probabilities, 1990, Probabilities of Large Earthquakes in the San Francisco Bay Region, California: U.S. Geological Survey Circular 1053.
7. Shakal, A.F., et al, 1990, Strong ground shaking from the Loma Prieta earthquake of 17 October 1989, and its relation to near surface geology in the Oakland Area, *in* the Loma Prieta (Santa Cruz Mountains) California, Earthquake of 17 October 1989: California Department of Conservation, Special Publication 104.
8. Reichle, M.S. et al, 1990, Preliminary analysis of processed strong motion data from the Loma Prieta earthquake, *in* The Loma Prieta (Santa Cruz Mountains), California, Earthquake of 17 October 1989, California Department of Conservation, Special Publication 104.

Curriculum Vitae

C. B. CROUSE

TITLE

Associate

EXPERTISE

Probabilistic and Deterministic Seismic Hazard Analyses
Development of Seismic Design Criteria
Ground-Motion Analyses
Site-Response and Soil-Liquefaction Studies
Seismic Soil-Structure Interaction Investigations

**PROFESSIONAL
EXPERIENCE**

Dr. Crouse has 19 years of professional experience in earthquake engineering and engineering seismology. He has been responsible for managing and performing technical projects involving: determination of seismic design criteria and seismic design of structures, seismic safety surveys for existing structures, dynamic analysis of soil-structure interaction, seismic response of foundation soils, vibration testing of structures in the field, seismic hazard analysis, probability studies of environmental loads, studies of soil liquefaction, and centrifuge modeling of soil-structure systems. Projects included DOE facilities, nuclear and conventional power plants, off-shore structures, LNG and water-storage tanks, multi-story buildings, dams and reservoirs, hospitals, bridges, electrical transmission facilities, pipelines, and the superconducting super collider.

Dames & Moore, Inc. (1988 - present)

Performs probabilistic and deterministic seismic hazard analyses, ground-motion, site-response and soil-liquefaction studies, and seismic soil-structure interaction investigations.

Project Manager/Principal Investigator

- Evaluation of the site response for the Nuclear Regulatory Commission, National Service Foundation, and California Division of Mines and Geology. Evaluation includes calculation of site-amplification factors and site-dependent spectra from earthquake motions recorded on different local geologies.

Seismic hazard evaluations for John Hest, Jordan River, Burton, Cleveland, and

- Seismic design study for BE&C Engineers. Study included seismic hazard analysis, development of seismic design criteria, and application of criteria to design of Boeing's essential and critical buildings.
- Seismic hazard analyses of existing offshore platform sites in Huntington Beach, California, Santa Barbara Channel, and New Zealand. Analyses included evaluation of geologic and tectonic data, historical seismicity, and recorded ground motions. Ground motions for use in structural stability evaluations were estimated using probabilistic and deterministic methods.
- Seismic hazard analysis for Trans Mountain Oil Pipeline Company. Studies included probabilistic and deterministic estimates of ground motion and development of seismic design parameters for proposed oil pipeline facility in northwestern Washington.
- Seismic hazard evaluations for the San Francisco, San Jose, Los Angeles, Fullerton, and San Diego campus sites of the California State University system. Evaluations included the determination of earthquake ground motions for use in the seismic evaluation of campus parking structures.
- Seismic hazard analyses of the Western Washington University campus. Studies included probabilistic and deterministic estimates of ground motion, development of seismic design criteria for soft and firm soil, and evaluations of liquefaction and slope stability.
- Ground-motion attenuation investigation of subduction-zone earthquakes in the Pacific Northwest for the U.S. Geological Survey and Electric Power Research Institute. Investigation included development of attenuation equations applicable to subduction-zone earthquakes in the region.
- Centrifuge studies of soil liquefaction and site response for the U.S. Geological Survey and Nuclear Regulatory Commission. Studies included dynamic tests of saturated sand in the Caltech centrifuge and analytical modeling of the recorded data.

Earth Technology Corp. (1974-1988)

• Performed seismic hazard analyses and developed seismic design criteria for

COUNTRIES WORKED IN	United States, New Zealand, Canada, Taiwan, and Japan
REGISTRATION	Civil Engineering: California, 1978, Registration No. C29085
PROFESSIONAL ACTIVITIES	<p>American Society of Civil Engineers - Member</p> <ul style="list-style-type: none">• Member and Past Chairman of TCLEE Gas and Liquid Fuels Lifeline Committee.• Member of TCLEE Seismic Risk Committee.• Member of TCLEE Transportation Committee <p>Earthquake Engineering Research Institute - Member</p> <ul style="list-style-type: none">• Member of Board of Directors• Member of Strong Motion Instrumentation Committee <p>Seismological Society of America - Member</p> <ul style="list-style-type: none">• Associate Editor <p>Structural Engineers Association of Washington - Member</p> <p>Structural Engineers Association of California - Former Member</p> <ul style="list-style-type: none">• Former Member of Seismology Committee <p>U.S. Transportation Research Board</p> <ul style="list-style-type: none">• Member of Dynamic Testing and Analysis of Bridges Committee <p>U.S. National Research Council</p> <ul style="list-style-type: none">• Former Member of Committee on Earthquake Engineering <p>National Science Foundation</p> <ul style="list-style-type: none">• Member of BCS Advisory Committee• Past Member of Panel to evaluate National Center for Earthquake Engineering Research <p>Building Seismic Safety Council</p> <ul style="list-style-type: none">• Participant in workshop to develop plan for developing national standards for lifelines• Participant in workshop on development of ground-motion maps for national building codes

PUBLICATIONS

BOOKS

Eguchi, R., and C.B. Crouse (Editors), 1986. Lifeline Seismic Risk Analysis - Case Studies: American Society of Civil Engineers, N.Y., N.Y., 138p.

Guidelines for Seismic Design of Oil and Gas Pipeline Systems, 1984. ASCE Technical Council on Lifeline Earthquake Engineering, authored by GLFL - TCLEE Committee Members.

REFEREED PAPERS

Crouse, C.B., S.L. Kramer, R. Mitchell, and B. Hushmand, 1993. Dynamic tests of a pipe pile in saturated peat: J. Geotech. Div, ASCE, in press.

Crouse, C.B., 1991. Ground-motion attenuation equations for earthquakes on the Cascadia subduction zone: Earthquake, Spectra, Vol. 7, No. 2, May.

Rihn, W.J., W.F. Miller, C.B. Crouse, E.L. Holbrook, and B. Hushmand, 1990. Analysis and Testing of the FBA-11 Force Accelerometer: Earthquake Spectra, Vol. 6, No. 4, November.

Crouse, C.B., B. Hushmand, J.E. Luco, and H.L. Wong, 1990. Foundation impedance functions: theory vs. experiment: J. Geotech. Div., ASCE, Vol. 116, No. 3, March.

Vyas, Y.K., C.B. Crouse, and B.A. Schell, 1990. Regional design ground motion criteria for the southern Bering Sea: Offshore Mechanics and Arctic Engineering, Vol. 112, No. 1, February.

Crouse, C.B., and B. Hushmand, 1989. Soil-structure interaction at CDMG and USGS accelerograph stations: Bull. Seism. Soc. Am., Vol. 79, No. 1, February.

Crouse, C.B., Y.K. Vyas, and B.A. Schell, 1988. Ground motions from subduction-zone earthquakes: Bull. Seism. Soc. Am., Vol. 78, No. 1, February.

Hushmand, B., R.F. Scott, and C.B. Crouse, 1988. Centrifuge liquefaction tests in a laminar box: Geotechnique, Vol. 38, No. 2, June 1988.

Crouse, C.B., B. Hushmand, and G.R. Martin, 1987. Dynamic soil-structure interaction of a single-span bridge: Earthquake Eng. and Structure Dyn., Vol. 15, No. 6, August.

Crouse, C.B., and L. Cheang, 1987. Dynamic testing and analysis of pile-group foundations: Proceedings Symposium on Dynamic Response of Pile Foundations: Experiment, Observation and Analysis, ASCE, April.

Crouse, C.B., G.C. Liang, and G.R. Martin, 1985. Experimental foundation impedance functions: J. Geotech Div., ASCE, Vol. 111, No. 6, June.

Crouse, C.B., G.C. Liang, and G.R. Martin, 1984. Experimental study of soil-structure interaction at an accelerograph station: Bull. Seism. Soc. Am., Vol. 74, No. 5, October.

Crouse, C.B., and T. Matuschka, 1983. Accelerograph pen-offset and digitization noise associated with Japanese accelerograms: Bull. Seism. Soc. Am., Vol. 73, No. 4, August.

Crouse, C.B., 1978. Prediction of free-field earthquake ground motions: ASCE Specialty Conference on Earthquake Engineering and Soil Dynamics, Vol. 1, June.

Crouse, C.B., 1976. Horizontal ground motion in Los Angeles during the San Fernando earthquake: Earthq. Eng. and Struct. Dyn., Vol. 4, No. 4, April-June.

Crouse, C.B., and P.C. Jennings, 1975. Soil-structure interaction during the San Fernando earthquake: Bull. Seism. Soc. Am., Vol. 65, No. 1, February.

PROCEEDINGS

Crouse, C.B., and T. Price, 1993, Dynamic soil-foundation interaction at the Meloland Road Overcrossing: Proceedings of ASCE Structures Congress '93', Structural Engineering in Natural Hazards Mitigation, Vol. 1, April.

Hushmand, B., R.F. Scott, and C.B. Crouse, 1992. In-place calibration of USGS pore pressure transducers at Wildlife Liquefaction site, California, USA: Proceedings Tenth World Conference on Earthquake Engineering, Vol. 3, Madrid, Spain, July.

Crouse, C.B., T. Price and R. Mitchell, 1992. Evaluation of methods to estimate pile foundation stiffnesses for bridges: Proceedings 8th U.S.-Japan Bridge Engineering Workshop, Chicago, IL, May.

Dolan, D.K., C.B. Crouse, and J.M. Quilter, 1992. Seismic reassessment of Maui A: Proceedings Offshore Technology Conference, Houston, TX, OTC 6934, May.

Crouse, C.B., and J. Quilter, 1991. Seismic hazard analyses and development of design spectra for Maui A platform: Proceedings of Pacific Conference on Earthquake Engineering, Auckland, New Zealand, November.

Hushmand, B., R.F. Scott, and C.B. Crouse, 1991. In situ calibration of USGS piezometer installations: Recent Advances in Geotechnical Instrumentation, Proceedings of ASCE Convention, Orlando, FL, October.

Crouse, C.B., and B. Hushmand, 1990. Soil-structure interaction and nonlinear site response at the Differential Array accelerograph station: Proceedings of 4th U.S. National Conference on Earthquake Engineering, Palm Springs, CA, May.

Gates, W.E., G.C. Hart, and C.B. Crouse, 1990. Vibration studies of an existing building for base isolation retrofit: Proceedings of 4th U.S. National Conference on Earthquake Engineering, Palm Springs, CA, May.

Hushmand, B., C.B. Crouse, R.J. Robertson, and D.G. Anderson, 1990. Seismic monitoring and evaluation of a solid waste landfill: Proceedings of 4th U.S. National Conference on Earthquake Engineering, Palm Springs, CA, May.

Hushmand, B., and C.B. Crouse, 1990. Soil-structure interaction at Tarzana accelerograph station: Proceedings of 1990 ASCE Structures Congress, Baltimore, MD, May.

Werner, S.D., B.M. Douglas, and C.B. Crouse, 1989. System identification of Meloland Road overcrossing, Proceedings of 1989 ASCE Structures Congress, San Francisco, CA, May.

Douglas, B.M., C.B. Crouse, and S.D. Werner, 1988. Dynamic testing and seismic response evaluation of the Meloland Road Overcrossing: Proceedings of 4th U.S. - Japan Workshop on Bridge Engineering: Performance, Strengthening, and Innovation, San Diego, CA, May.

Hushmand, B., C.B. Crouse, and G.R. Martin, 1988. Dynamic centrifuge testing of a bridge-soil model: Proceedings of International Conference on Geotechnical Centrifuge Modeling, Paris, France, April.

Crouse, C.B., and B. Hushmand, 1987. Estimation of bridge foundation stiffnesses from forced vibration data: Proceedings of 3rd International Conference on Soil Dynamics and Earthquake Engineering, Princeton University, Princeton, N.J., June.

Hushmand, B., C.B. Crouse, G.R. Martin, and R.F. Scott, 1987. Site response and liquefaction studies involving the centrifuge: Proceedings of 3rd International Conference on Soil Dynamics and Earthquake Engineering, Princeton University, Princeton, N.J., June.

Martin, G.R., I.P. Lam, and C.B. Crouse, 1987. Seismic retrofit for geotechnical components of transportation systems: Proceedings of Workshop on Development of an Action Plan for Abatement of Seismic Hazards to Lifelines, Denver, CO.

Foo, S., and C.B. Crouse, 1986. Evaluation of seismicity and earthquake loading at Hibernia: Proceedings Offshore Marine Geotechnical Conf., St. Johns, Newfoundland, Canada. June.

Crouse, C.B., et al., 1985. Dynamic response of bridge-abutment-backfill systems: Proceedings Joint U.S. - New Zealand Workshop on Seismic Resistance of Highway Bridges, Applied Technology Council, ATC-12-1, San Diego, CA, May.

Crouse, C.B., G.C. Liang, and G.R. Martin, 1984. Amplification of earthquake motions recorded at an accelerograph station: Proceedings Eighth World Conference on Earthquake Engineering, Vol. II, San Francisco, CA, July.

Crouse, C.B., 1984. Determination of seismic design parameters: Evaluation of Seismic Hazards for Earthquake Resistant Design, Earthq. Eng. Res. Inst. Publication No. 84-06.

Crouse, C.B., 1983. Soil-structure interaction effects at accelerograph stations: Proceedings of Workshop on Site-Specific Effects of Soil and Rock on Ground Motions and the Implications for Earthquake Resistant Design, U.S. Geological Survey Open File Report 83-845.

Crouse, C.B., 1983. Data processing: Proceedings of the Golden Anniversary Workshop on Strong Motion Seismometry, Univ. of So. Calif., Dept. of Civil Eng., March.

Crouse, C.B., 1982. Catalog of worldwide accelerogram data for seismic analysis: Proceedings of Conference on Seismic Risk of Heavy Industrial Facilities, Lawrence Livermore National Laboratory.

Crouse, C.B., and B.E. Turner, 1980. Processing and analysis of Japanese accelerograms and comparisons with U.S. Strong motion data: Proceedings Seventh World Conference on Earthquake Engineering, Vol. 2, Istanbul, Turkey, September.

Crouse, C.B., 1979. Probability of earthquake ground motion in San Diego: 1979 National Geol. Soc. Am. Field Trip Guidebook, San Diego, CA.

Wheaton, R., A. Vaish, C.B. Crouse, and R. Guzman, 1979. Probabilistic evaluation of the SSE design spectrum for a nuclear power plant: a case study: Proceedings of Fifth International Conference on SMIRT, Vol. K, Berlin, Germany, August.

Crouse, C.B., and B.E. Turner, 1978. Analysis of ground motion spectra: Proceedings of Second International Conference on Microzonation, Vol. II, San Francisco, CA, November.

Crouse, C.B., R. Guzman, and C. Espana, 1977, Probabilistic evaluation of liquefaction and application to a site near a subduction zone: Proceedings of Sixth World Conference on Earthquake Engineering, Vol. 4, New Delhi, India, January.

Guzman, R., C.B. Crouse, and P.C. Jennings, 1975. Determination of design earthquakes for nuclear power plants: Proceedings of 21st Conference of the Institute of Environmental Studies, Anaheim, CA, April.

MAGAZINES

Martin, G.R., I.P. Lam and C.B. Crouse, 1987. Quake-resistant transport: Civil Engineering, ASCE, May.

REPORTS

Crouse, C.B., E. Trahern, and T. Price, 1992. Nonlinear site response at the Differential Array station during the 1979 Imperial Valley, California, earthquake: Report to U.S. Nuclear Regulatory Commission and National Science Foundation, March.

Recommendations for the Strong-Motion Program in the United States, 1987, Panel on Strong Motion Instrumentation, Committee on Earthquake Engineering, National Research Council.

Borcherdt, R.D., J.G. Anderson, C.B. Crouse, N.C. Donovan, T.V. McEvilly and A.F. Schakal, 1984. National Planning Considerations for the Acquisition of Strong-Ground-Motion Data, Earthquake Eng. Res. Inst. Publication No. 84-08.

Mori, A.W., and C.B. Crouse, 1981. Strong motion data from Japanese earthquakes: Report SE-29, World Data Center A for Solid Earth Geophysics, NOAA, December.

Crouse, C.B., et al., 1980. Compilation, assessment and expansion of the strong earthquake ground motion data base: Report NUREG/CR-1660, U.S. Nuclear Regulatory Commission, September.

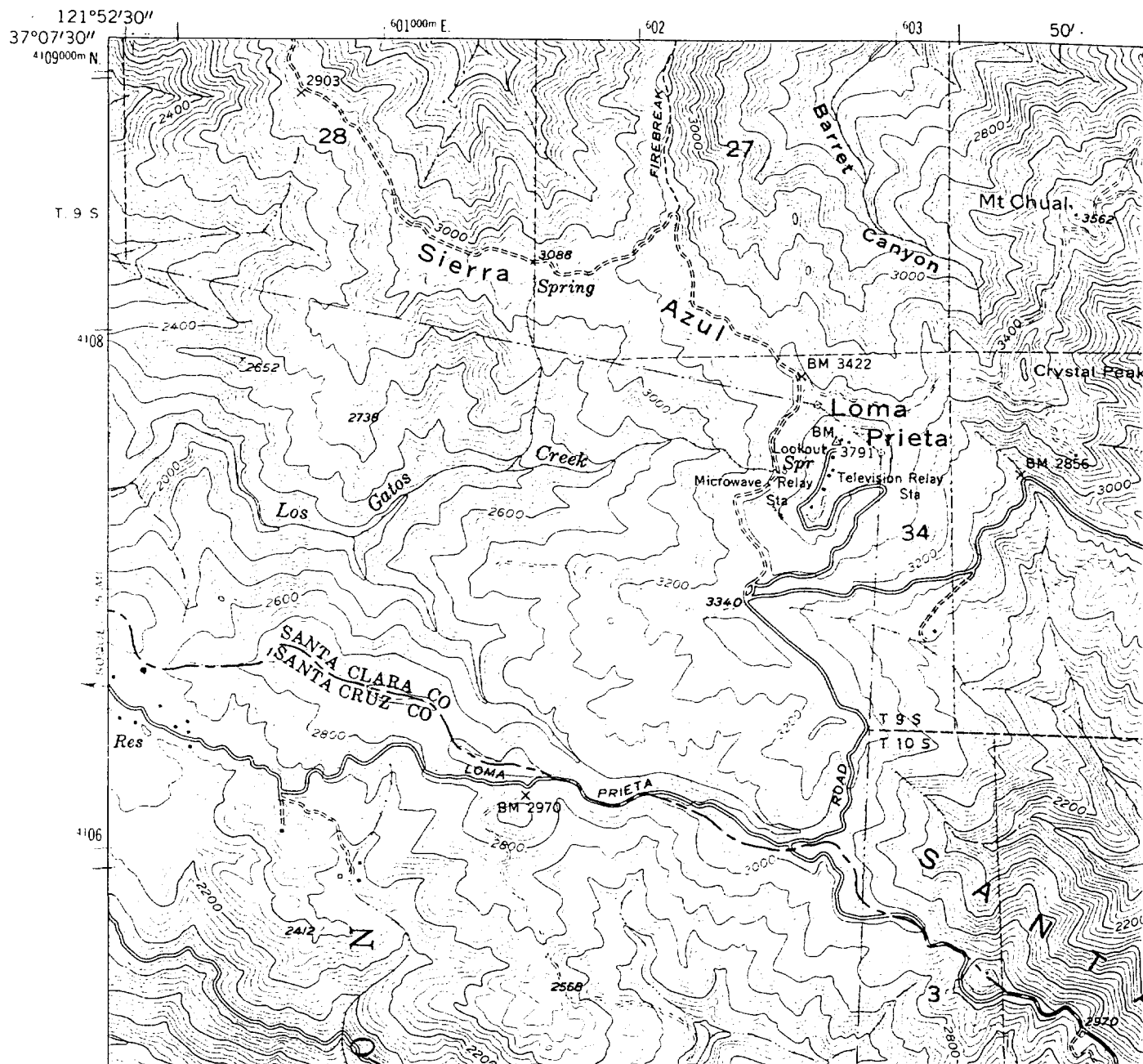
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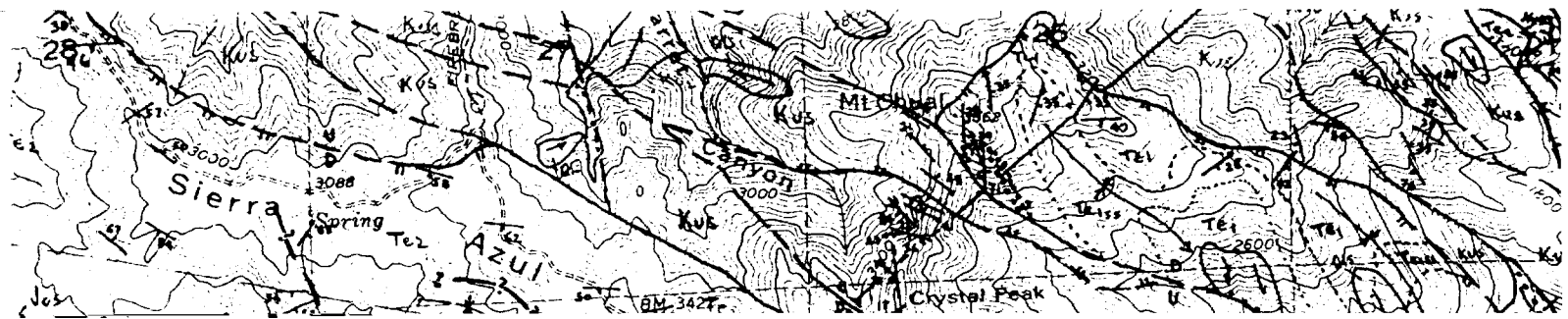
Engineering Studies of the San Fernando Earthquake: California Institute of Technology, Report EERL 73-04, March, 1973.

CBC. STD

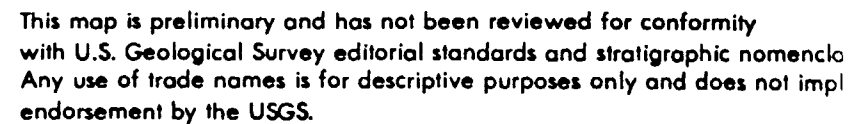
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